CENTER FOR ECONOMIC RESEARCH

REAL

REGIONAL ECONOMIC ANALYSIS OF LOUISIANA

REPORT

SPRING 2022

COLLEGE OF BUSINESS

Dean's Message

We are pleased to share with you the Spring 2022 edition of the Regional Economic Analysis of Louisiana (REAL) Report, an ongoing series designed to provide insight into recent economic developments in Louisiana. In addition to economic forecasts, this edition features a number of analyses, including information on wage disparities, employment compared to oil price movement, wage inflation, income disparity compared to ACT scores, and the urban/rural divide in our state's timber industry.

The REAL Report is produced by Center for Economic Research, in collaboration with faculty and students in Louisiana Tech University's College of Business, for the state of Louisiana and our region of the South. Providing an invaluable learning experience, this report is compiled by undergraduate business economics majors in partial fulfillment of their Regional Economic Analysis class.

If you are interested in reading past reports, please visit **business.latech.edu/realreport**. For more information on the Center for Economic Research or the REAL Report, contact Dr. Patrick Scott at pscott@latech.edu. Inquiries about specific sections of the report should be referred to the author of each section, while media inquiries should be directed to waldroup@latech.edu.

I hope the information included in this report serves as a valuable tool for your efforts.

Sincerely,

CHRISTOPHER L. MARTIN, PH.D.
Dean and Chase Endowed Professor
College of Business
Louisiana Tech University

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Meet the Team

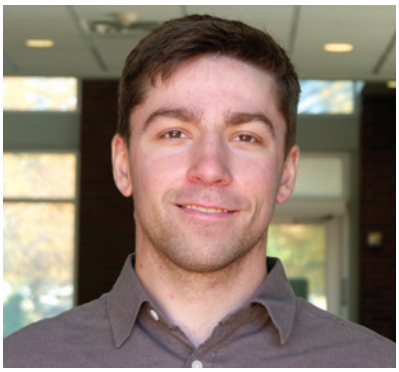
Paycen Brouillette is a senior business economics major from St. Francisville, LA. Paycen is involved in the Louisiana Tech Student Government Association, Pi Kappa Phi Fraternity, Student Recruiters, and the Student Advancement Team.

He served as a member of the peer review board of the Economic Scholars Program hosted by the Federal Reserve Bank of Dallas, and also contributed academic research to the program. Paycen graduated this Spring, and plans to obtain a Masters in Economics and to further his economic research.

Contact Paycen at **pmb024@latech.edu**.

Travis Corum is a third-year finance major from Pitkin, LA, and is involved on campus in the Beta Alpha Psi Honors Fraternity and the Baptist Collegiate Ministry. He will also be a part of the Student Managed Investment Fund starting in the Fall of 2022. He plans to graduate in May of 2023, and after graduating, plans to pursue a career in portfolio management and analysis.

Contact Travis at **tjc048@latech.edu.**



Adam Quebedeaux is a fourth-year business economics major at Louisiana Tech University from New Orleans, LA. He is involved on campus with the University's Air Force ROTC program. He graduated this Spring, and plans to move to Pensacola, FL, to begin work in the Air Force.

Contact Adam at **amq002@latech.edu**.

Liam Moppert is a fourth-year business economics major with a minor in aerospace studies at Louisiana Tech University from Baton Rouge, LA. He is involved on campus with the University's Air Force ROTC program and is a Combat Systems Officer select. He plans to graduate in Winter of 2023, and after graduating, will move to Pensacola, FL, to begin work in the Air Force.

Contact Liam at **lrm030@latech.edu**

Amanda Wilder is a third-year accounting major with a minor in business economics from Texas. She is involved in the Student Government Association, Pre-law Society, and is a member of Alpha Chi Omega Sorority, Beta Alpha Psi Business Fraternity, and the Association of International Certified Professional Accountants. Amanda graduated this Spring, and will pursue a master's in accounting at Texas A&M University in the fall.

Contact Amanda at **agw024@latech.edu**.

Dr. Patrick Scott is an assistant professor of economics and director of the Center for Economic Research. He teaches macroeconomics, monetary theory, and research methods at Louisiana Tech University. His research interests include optimal monetary policy models, dynamic general equilibrium models, time series forecasting, and Bayesian econometrics.

Contact Patrick at **pscott@latech.edu**.

Louisiana Economic Indicator Forecasts

BY C. PATRICK SCOTT, PH.D.

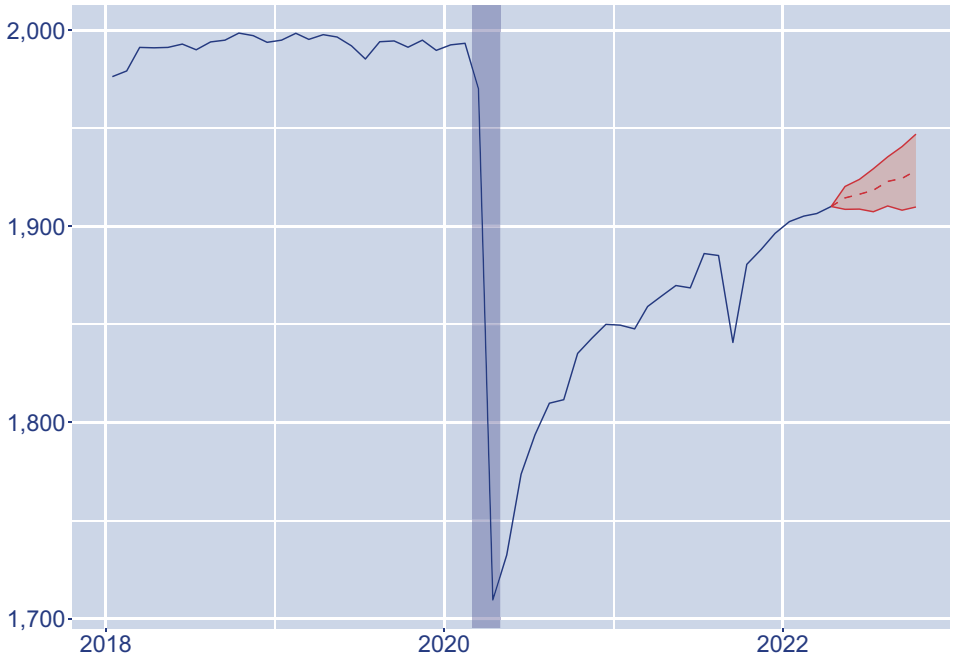
Forecasts are provided using a Bayesian model averaging approach from many statistical models. This method is utilized to capture the relative uncertainty that any one individual model is not properly specified and thus accounting for that uncertainty in our analysis.

Non-Farm Employment

Total employment is still down approximately 83,000 jobs from pre-COVID levels two years ago. Supply chain issues continue to persist, especially for durable goods purchases which have increased as U.S. consumers generally have shifted consumption patterns away from services. As the Federal Reserve responds to broad inflationary pressures, continued increases in the Fed's key interest rate will bring prices further into check at the cost of business expansion. New variants of COVID, along with uncertain public safety policy and ambiguous fiscal policy at the national and state level, are still weighing down new job creation.

Punchline: It has taken two years for LA to recover two-thirds of its job losses from COVID-19.

Figure 1: Forecasted Non-Farm Employment (Thousands)



Unemployment Rate

The headline unemployment rate for Louisiana dropped to its lowest level since before the Great Recession (4.1%, March 2008). While the state economy is well within the recovery phase of this recession, the unemployment rate is not expected to continue to fall. Louisiana, in normal times, follows a pattern with the U.S. economy where unemployment dynamics are clipped at all phases of the business cycle. These normal dynamics have returned as both the U.S. and LA economies continue their recovery. Since the U.S. unemployment rate is expected to increase in the coming months, the state rate is expected to follow suit, but by not as much.

Punchline: A return to normalcy for this measure of economic health is welcome.

Figure 2: Forecasted Unemployment Rate (Percent)

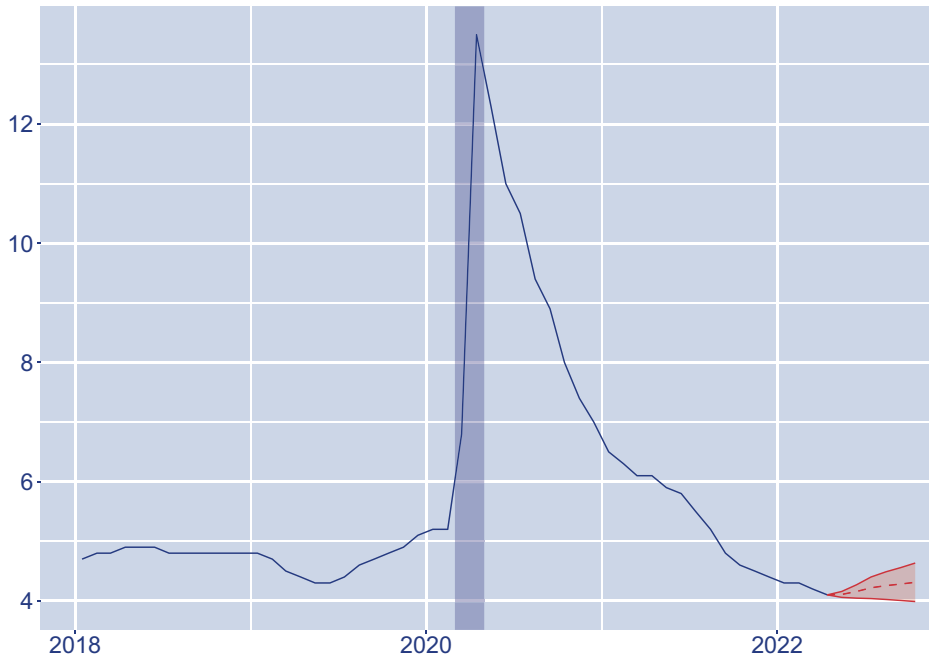
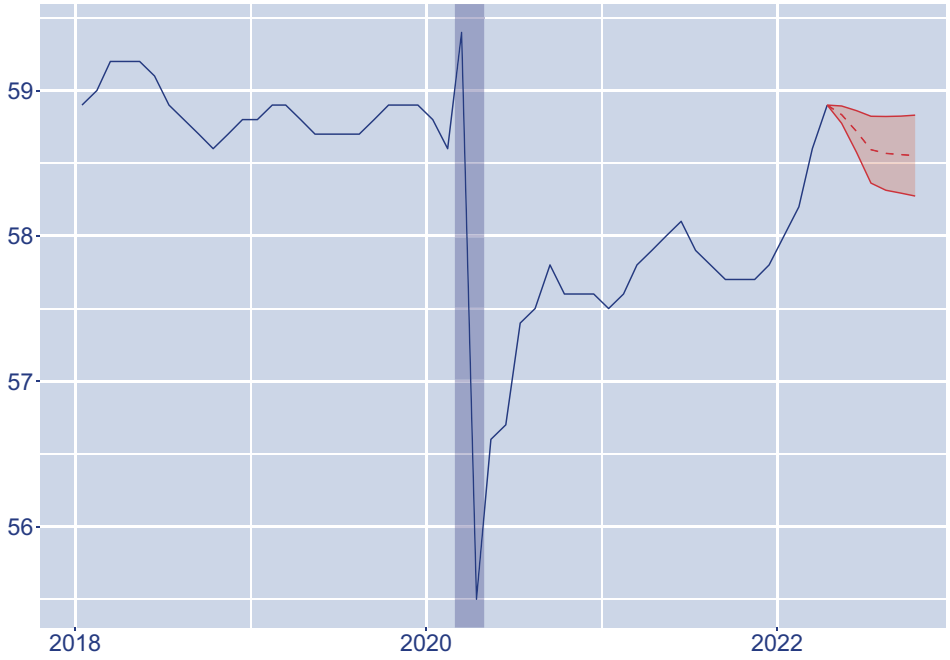


Figure 3: Forecasted Labor Force Participation Rate (Percent)

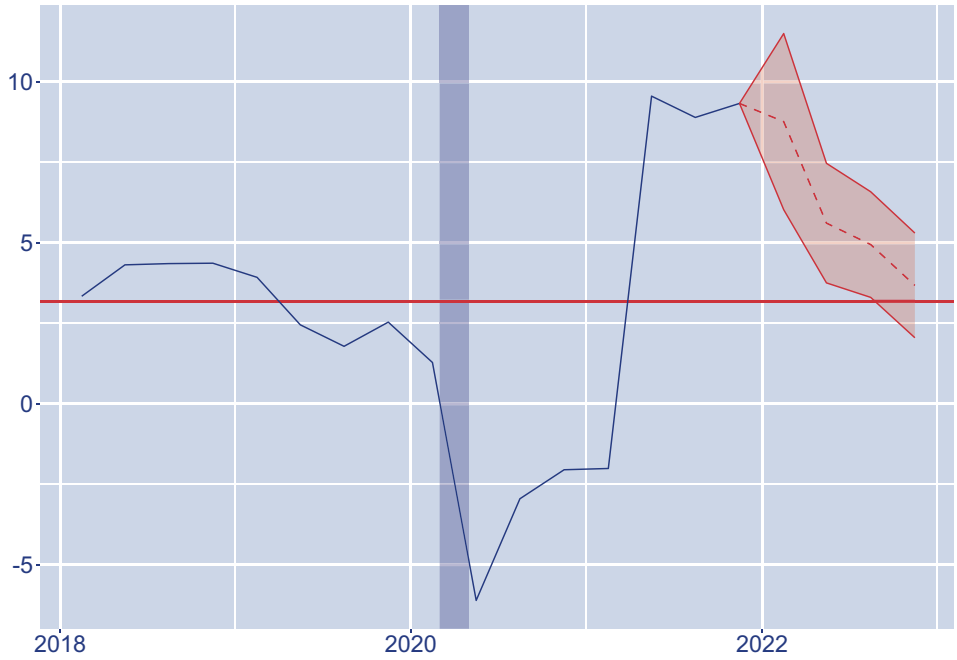


Labor Force Participation Rate

The labor force participation rate (the fraction of working age population engaging labor markets) recovered nearly a full percent in the first quarter of 2022. While this is a welcome change, most models predict that this increase is not fully sustainable. Expected policy outcomes from the central bank as well as fiscal policy indicate that this is likely to drop modestly, but still retain most of the gains from the past four months. April's estimate of 58.9% puts the LA economy squarely in line with pre-pandemic levels for the first time in two years.

Punchline: Grab another Moon Pie, this recovery is for real.

Figure 4: Forecasted Wage Inflation (Percent)



Wage Inflation

The long-run growth rate of wages is approximately 3.2% for Louisiana (the horizontal red line). While wage growth was well below the long-run average a year before COVID hit, the labor market shock reduced wage growth more than 9.3% from the long-run average rate. Wages have climbed more in the five quarters since COVID than we have seen in LA for the past 30 years (as far back as our data currently goes), and more than 11% in the first half of 2021. Forecasts indicate that this trend is not likely to continue. Over the next year, the range of statistically equivalent forecasts declines and includes the long-run average for the state one year out.

Punchline: Wage growth has reduced some of the pain felt by higher prices, but labor market incentives are shifting.

Monthly employment, unemployment rate, and labor force participation rate data for this section extend to April 2022 and include the most current releases at the time of publication. Quarterly wage data extend through December 2021 and include the most current releases at the time of publication.

Wage Disparity Across the Southeast

BY PAYCEN BROUILLETTE

States frequently vie for the opportunities that large corporations or businesses bring to the region when they decide to locate there. A firm looking to hire 200 new workers represents a large economic shock to an area that brings with it a virtuous economic cycle of increased income (so-called direct impacts), additional supply chain benefits that may be needed above what is demanded before (so-called indirect impacts), and additional consumer demand and income boosts as workers spend labor income in the local region (so-called induced impacts). The purpose of this study is to analyze wage rates among contiguous neighbors of Louisiana. Where should a firm that is looking to benefit the most locate?

Nationwide, average hourly wages have risen from $20.60 in January of 2007 to $31.73 in March of 2022. Louisiana, however, averaged several dollars below those benchmarks over the same period of time with an hourly average wage of $18.05 in January 2007, and $27.00 in March of 2022. Despite average wages for the state of Louisiana lagging the national average wage, this discrepancy is not unique to Louisiana. Southern neighboring states, namely Mississippi, Alabama, Arkansas, and Oklahoma, have maintained average hourly wages below the national average over the same period of time. Texas is the only state that has maintained hourly wages above the national rate.

Figure 5 shows the ratio of real hourly average wages and salaries for each state relative to Louisiana. Each state's nominal data are deflated by the CPI during the same time period in order to convert nominal wages to real terms. Additionally, these real wages are expressed as a ratio of Louisiana's real wages. When the ratio rises above unity, that state's wages are higher than Louisiana's on average and below unity indicates lower real wage earnings. The nominal average wage data account for the substitution effect of higher local minimum wages, though this is really only an issue for Arkansas post 2014 in this analysis given the states examined.

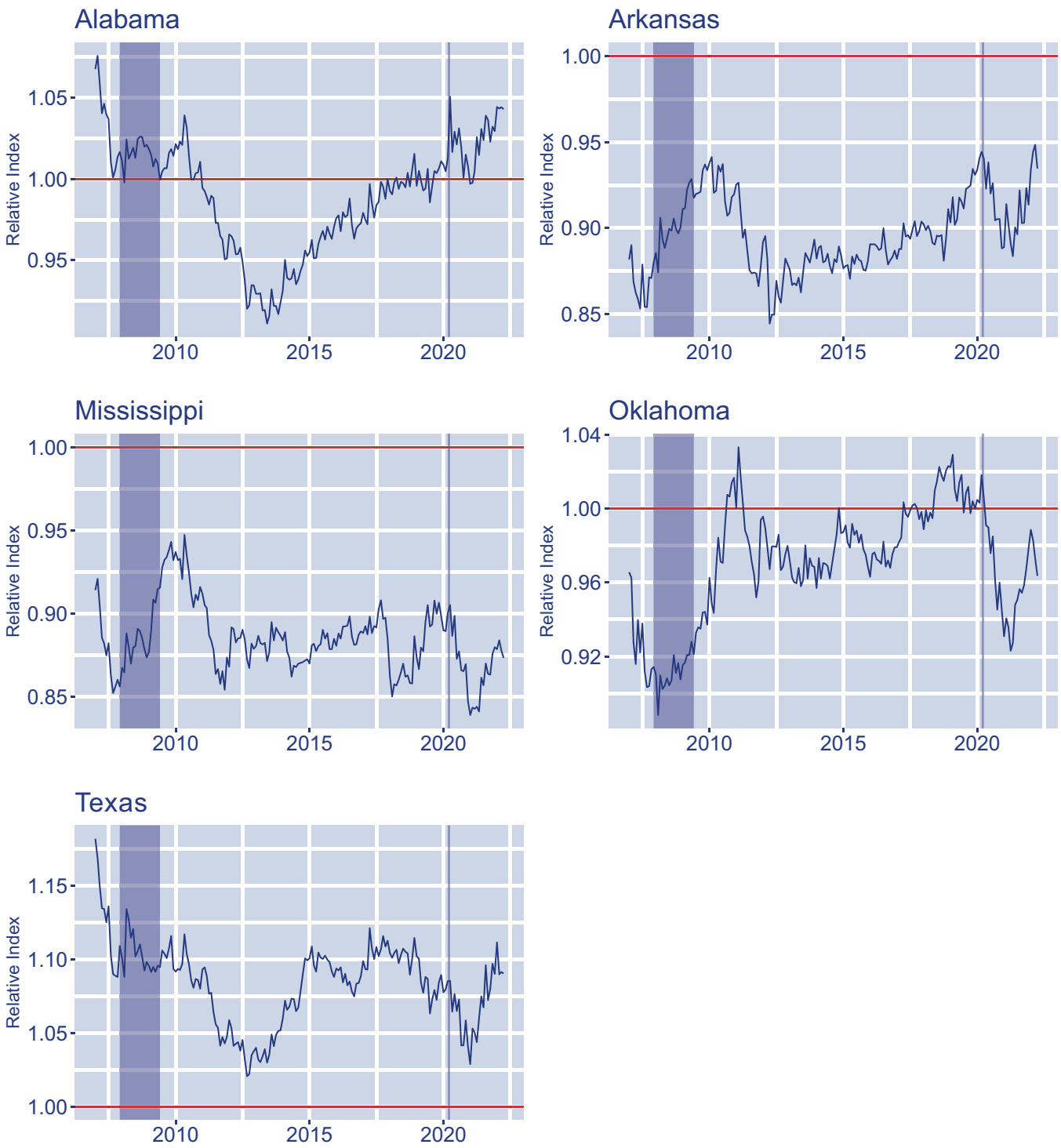
Figure 5 shows that Arkansas and Mississippi have relative wage indices that are consistently below parity with Louisiana. This represents both a weakness and a strength for these two states. From the perspective of a business looking to employ workers, Arkansas and Mississippi provide an opportunity to save labor costs given that location is relatively substitutable. However, lower average wages means that local demand may be relatively muted and thus there may be less market opportunities to sell to these same communities. Texas, on the other hand, is the opposite. The relative wage index is always greater than one, thus labor is paid a premium relative to Louisiana. Texas would represent a relatively strong potential consumer demand increase, but the growth opportunities cost employers more on the margin to hire there.

Alabama and Oklahoma are more nuanced in their interpretation. There are considerable periods where real wages are below and then above Louisiana's real wages. Labor market dynamics shifted following the Great Recession nationally. The average age of the work force nationally increased as soon-to-be retired Baby Boomers clung to the workforce longer in an effort to rebuild lost retirement savings after financial markets bottomed out in 2009. This has also led to the postponing of financial independence of

Data for this report are provided by the Bureau of Labor Statistic's Current Employment Statistics (CES) program. Monthly data extend to April 2022.

Millennials as their workforce experience suffered at the expense of Baby Boomers. The demographic makeup of labor markets in each state are partly responsible for the shifting patterns we see over time in Alabama and Oklahoma. Nevertheless, over the long-run these two states would be statistically considered in parity with Louisiana. The savvy business owner may benefit from a strategic choice between the two states over the short-term, but not over the decades.

Figure 5: State Real Wages Relative to Louisiana (Percentage)

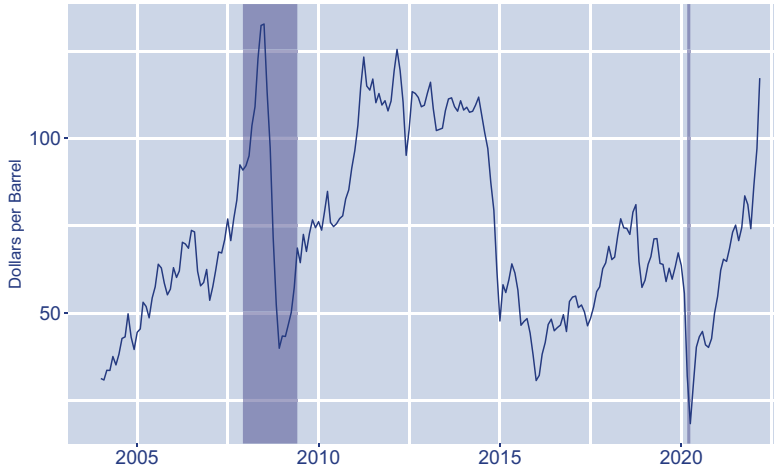


Measuring Employment Sensitivity When Oil Prices Move

BY ADAM QUEBEDEAUX

The health of Louisiana's economy is tied directly to the health of oil industry employment. Oil and gas extraction as well as petrochemical manufacturing account for about 25% of Louisiana's gross state product. This lack of diversification in the overall economic makeup of the state is accompanied by both strength and weakness. Many of the boom-cycles in the oil industry are driven by international price shocks which are largely exogenous to Louisiana output and employment. To this end, how sensitive is oil and gas extraction employment to international oil price movements?

Figure 6: Brent Crude Oil Prices (Dollars per Barrel)



Oil and Natural Gas Extraction Employment (Thousands of Workers)

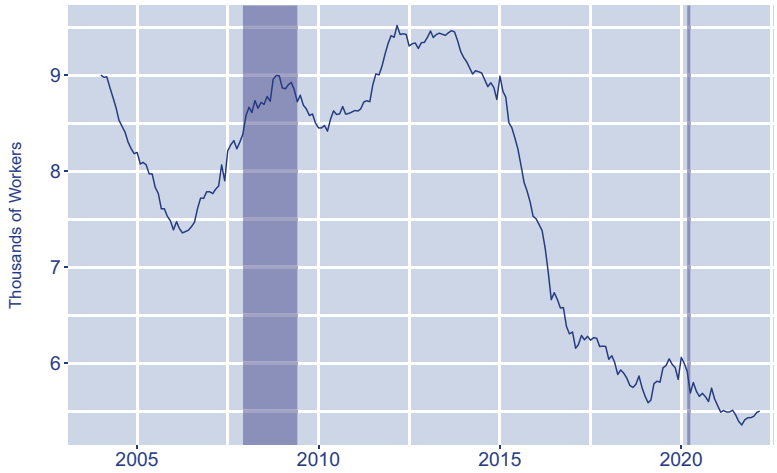
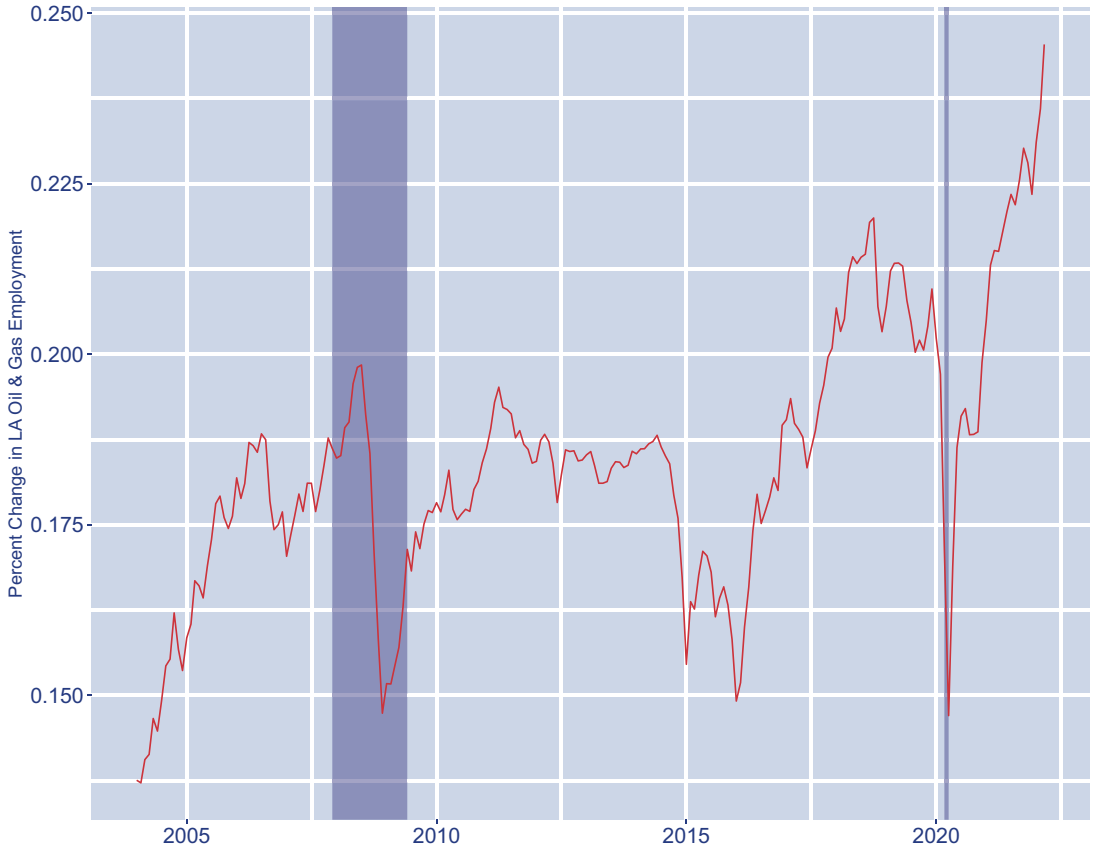


Figure 6 (top panel) shows international monthly crude oil prices in dollars per barrel from 2004 to present. Crude oil prices peaked in July 2008 at over $132 per barrel. Oil prices remain near their 20 year peak and have climbed nearly $100 per barrel since the start of the COVID-19 pandemic. Figure 6 (bottom panel) shows oil and gas extraction employment over the same period as the top panel in thousands of workers. This panel shows that employment in this sector has declined by over 4,000 employees from March 2012 to today, about 43% of industry-wide employment. While it is not shown here, Louisiana's output of oil has fallen by about 52% over that same time. As fracking in North Dakota became more viable in 2015, we see a substantial decrease in demand for employees in Louisiana oil fields.

In order to estimate how the elasticity of oil employment to oil prices might evolve over time, regression analysis is employed to first estimate this elasticity measure on average. A linear time series regression model is estimated where the dependent variable is the natural log of oil employment. Multiple regressors are considered, including the natural log of oil prices. The estimated coefficient of the natural log of crude oil prices is the elasticity on average (since the fitted line of the regression model passes through the average of the data). This elasticity estimate is decomposed to isolate the marginal rate of change, and this is evaluated for every point in our data set. The resulting time series represents a time-varying elasticity of oil and gas employment to international crude oil prices (Figure 7).

Data for this report are provided by the Bureau of Labor Statistics and the U.S. Energy Information Administration. Monthly data extend to April 2022..

Figure 7: Time Varying LA Oil Employment Elasticity of Oil Price (Percent)



Notice that Figure 7 inherits dynamics from both crude oil prices as well as employment dynamics. The reader is cautioned not to apply an interpretation of a traditional price elasticity of demand (where values greater than one are relatively elastic, equal to one is unit-elastic, and values less than one are relatively inelastic). Instead, the importance of these estimates lies in how they evolve through time. Because of the relatively high level of employment during 2008 to 2009, the relatively large price variation during that time (the second largest swing in prices) does not produce as much of swing in elasticity estimates. In fact, at the two-year interval, this is only the fifth largest swing in elasticity estimates over the last 18 years. More recently however, oil labor to crude oil price elasticity estimates have shifted the most in the post-COVID recessionary period. The relatively large shift in oil prices, coupled with a relatively low amount of oil employment means that the industry (and the Louisiana economy in general) are more exposed to crude oil price movements than they have been in at least the past 20 years.

Louisiana's dependence on its oil industry can be related directly to its oil prices and directly affects the elasticity of not only the oil and gas industry employment percentage but Louisiana's total employment. On the national level, the oil price-macroeconomy relationship appears to have diminished somewhat. This is not the case for the state of Louisiana. Louisiana is likely to shoulder the burden more than other states as the nation grapples with debates about alternative energy sources and peak-oil demand, as well as the effects of policy actions in this and related industries (most notably greener and renewable energy industries).

Wage Inflation Across the Boot

BY LIAM MOPPERT

While the length of the COVID-19 recession was the shortest in U.S. history, it was one of the most severe. It is marked with historic disruptions in employment, persistent supply chain issues, shifting consumption patterns, and unprecedented fiscal and monetary policy responses. These disruptions have implications for not only the price of goods and services (as measured by overall inflation), but also the price of skilled and unskilled labor (as measured by wage inflation). The purpose of this analysis is to focus on wage inflation disparity at the parish level. Price inflation is covered in the Winter 2022 REAL report (page 12).

Wage index values, in this case measured per parish, are calculated by a proportionally weighted average of all wages and salaries relative to state averages using Bureau of Economic Analysis estimates. Parish level estimates of average wages and salaries are inherently more volatile than their national counterparts. The wage inflation rate is then calculated by taking the annual percent change of this index value. It represents the growth rate of wages and salaries, but also accounts for state-wide dynamics. The result of this work is presented graphically on the map in Figure 8.

Figure 8: Parish Level Wage Inflation (Percent)

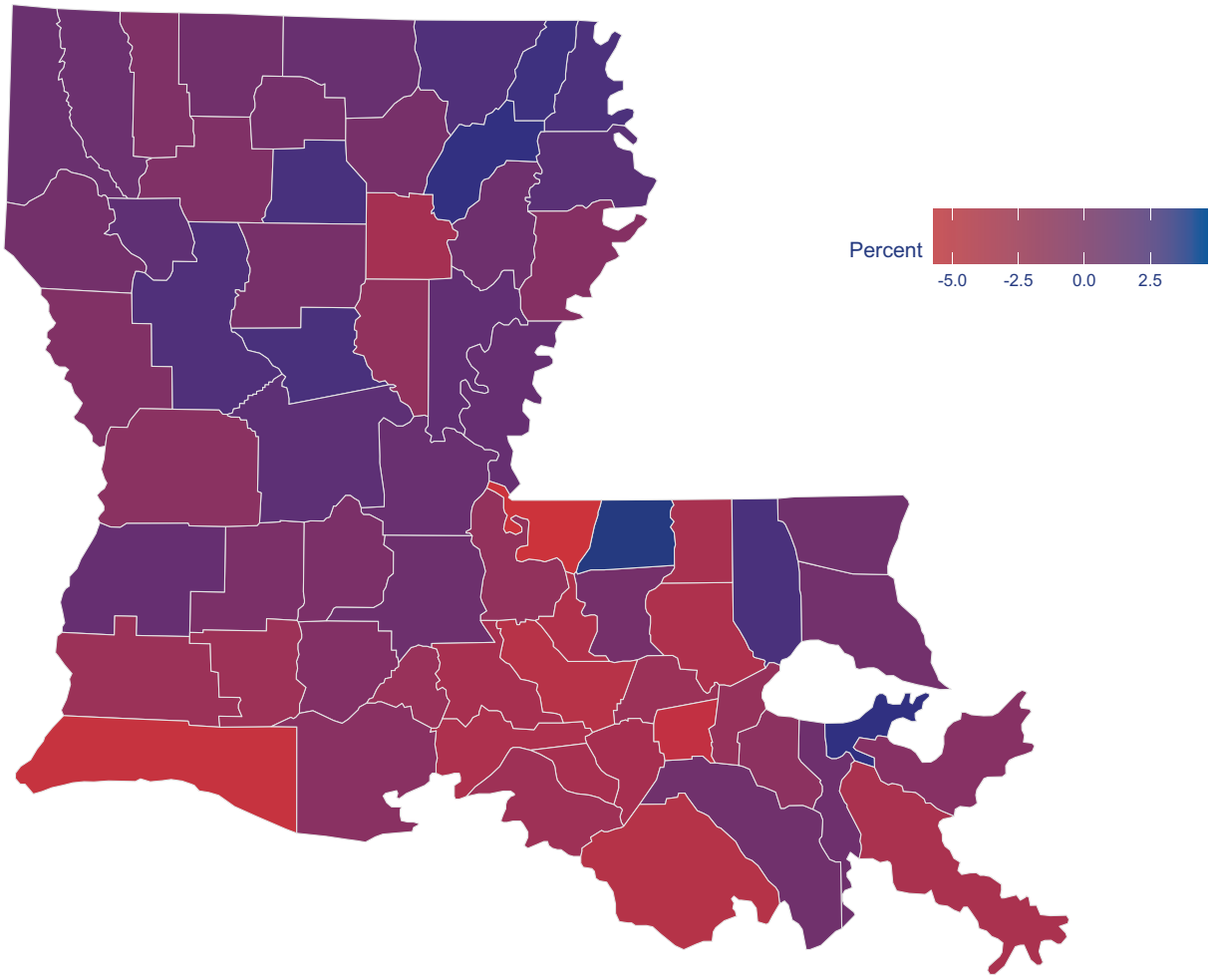


Figure 8 shows the full breadth of wage disparity in Louisiana in 2020. Most of the positive growth in wages occurred above I-10, while most of the parishes below the I-10 line experienced negative wage growth. Like price inflation, wage inflation is a doubled-edged sword of economic outcomes. Wages can grow organically due to stable economic growth caused by increases in the demand for labor, or they can grow due to supply issues in the labor force caused by less workers that are able and willing to supply labor. The former produces a virtuous cycle of wage growth to economic growth, and the latter produces a vicious cycle where higher wages lead to higher price inflation and the portion of the labor force that has not shared in the wage growth suffer in real terms. This graph generally does not communicate which type of wage growth we are seeing.

Figure 8 also shows that a total of 30 of the 64 parishes have negative wage growth relative to the state aggregate. These 30 parishes disproportionately pull down the state average though since for all of 2020, wages grew at a negative rate in Louisiana. Out of the 64 parishes, Cameron (-5.2%) and West Feliciana (-5.7%) experienced the worst wage losses. The large number of parishes with negative growth in wages can be attributed to a few factors, but most notably natural disasters and COVID-19 in 2020 disrupted economic activity. There were five named tropical storms and hurricanes that impacted the Louisiana coastline. This is historically above average. Of the ten bottom parishes in wage and salary growth, nine are below I-10 and thus directly impacted by weather-related disruptions (West Feliciana is the only parish above I-10, but only about 20 miles north of it). On the opposite side of the wage growth spectrum, seven out of the ten highest parishes for wage growth are in the "ankle of the boot," and nine out of ten are above I-10. The major population centers are not driving the extremes of wage inflation during the first year of the COVID-19 pandemic.

The starkest difference in wage inflation geographically appears in the pairwise case of East and West Feliciana. These two parishes are very similar in terms of population, labor force participation, unemployment rates, and industry makeup. The most likely explanation for this is an influx of federal dollars to East Feliciana which is home to the East Louisiana State Hospital. Departments of Health across the state have benefited from COVID-19 emergency funding and mental health facilities have received more than $15 million in additional federal funding in 2020. This may be a potential explanation for the nearly 10% wage inflation spread.

Data for this report are provided by the Bureau of Economic Analysis. Parish level data are produced with a year-long lag. Current annual data extend to 2020. 2021 estimates are expected in December 2022.

The Effect of Income Disparity on ACT Scores

BY TRAVIS CORUM

In Louisiana, the median household income in 2020 was around $50,935, making the state one of the lowest in this category, with only Arkansas, New Mexico, and Mississippi having lower median household income levels in 2020. In Louisiana, approximately 71% of enrolled students are classified as economically disadvantaged—about 690,000 students. The analysis below explains how the percentage of economically disadvantaged students in any given parish correlates to a decline in average ACT scores.

Per the ACT website, Louisiana is one of the lowest ranking states in terms of ACT composite scores, with an average composite of 18.4. The only states that have lower average ACT composite scores are Mississippi and Nevada, with a statewide average score of 18.1 and 17.8, respectively. To find a potential reason for why the statewide average is low, we analyze the effect that the percent of disadvantaged students has on ACT composite scores per parish. The Louisiana Department of Education defines *economically disadvantaged* as students that are eligible for food assistance programs, healthcare programs with limited financial resources such as Medicaid, free or reduced lunch price meals, or any combination of the above.

The assumption of this hypothesis is that the proportion of disadvantaged students in a given cohort has a negative relationship with the average ACT composite score. As the percent of disadvantaged students increases in a given parish, the average ACT score declines. The intuition is that economically disadvantaged students tend to have to worry more about first-order problems, such as food scarcity. As a result, their academic performance suffers. To test this hypothesis, an unrestricted linear regression model is constructed that takes into account parish population size, school funding per student, the percentage of disadvantaged students, parish GDP, and racial markers to account for any racial group disparities. A restricted model is also constructed by removing the percentage of disadvantaged students from the unrestricted model. The results of these models are shown in the chart below.

Figure 9: Parish Level Estimated Linear Relationship between Percent of Economically Disadvantaged Students and Average ACT Scores

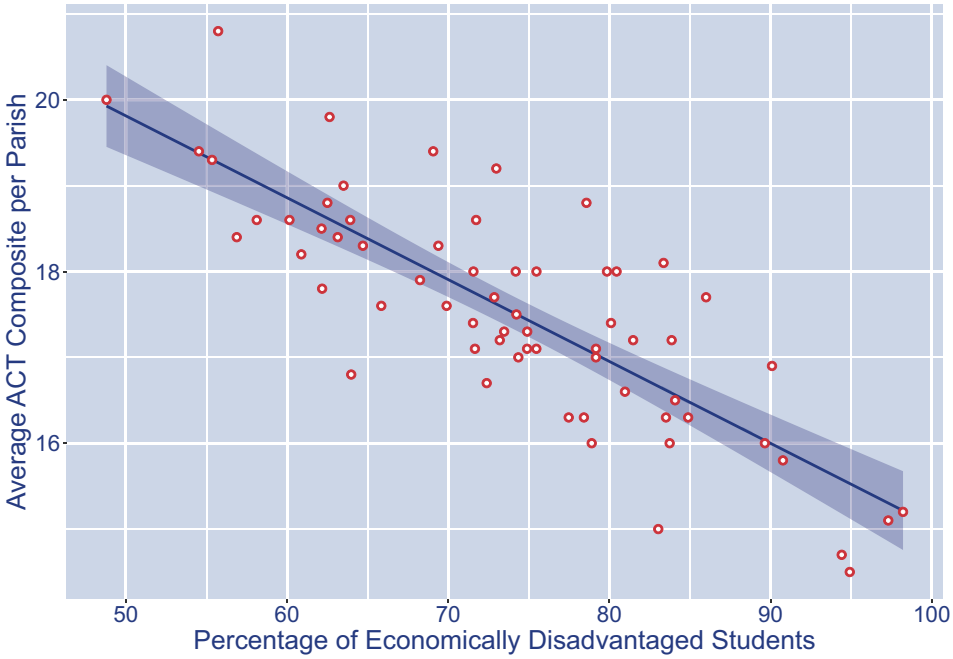
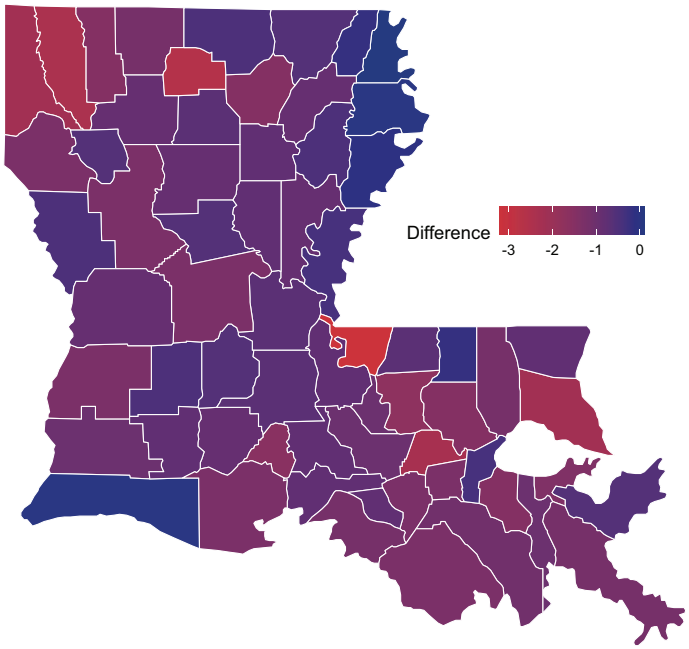


Figure 9 visually represents the estimated relationship between average ACT composite scores and the percent of economically disadvantaged students after controlling for the previously mentioned additional effects. The points represent both the average ACT composite score and the percent of economically disadvantaged student in each parish. The regression line summarizes the estimated relationship. Points further away from the line of best fit represent the set of potential outliers and the shaded region is a 95% confidence interval of the estimated relationship (95% confidence that the relationship lies within the shaded region). From this chart, we can see that as the number of students that are classified as disadvantaged increases by one percent, ACT composite scores decrease by 0.07 points on average. Given the total variation in the data, the maximum change in ACT composite scores that is explained by the percent of disadvantaged students is approximately 3.33 points on average. The difference in model fit between the restricted and unrestricted models indicates that the percent of ACT score variance that is explained by the proportion of disadvantaged students is approximately 56%.

With these results, another assumption can be made that if the percentage of students classified as disadvantaged is high in any given parish, the average ACT score in said parish is likely equal to or close to the average ACT score of the disadvantaged students. A heat map was constructed to show the difference in ACT scores among the disadvantaged student population to the parish-wide average ACT score across the entire state. The difference was computed by subtracting the average ACT composite score for disadvantaged students from the parish-wide average ACT composite score for each parish. This heat map is shown in Figure 10.

Figure 10 visually represents the distribution of the score difference across the state. The conclusion that can be drawn from this map is that if a given parish has a high percentage of economically disadvantaged students, the average ACT composite for the entire parish declines. Likewise, if the percentage of disadvantaged students

Figure 10: Parish Level ACT Score Disparities for Economically Disadvantaged Students (Percent)



in each parish is low, the average ACT composite will be higher, but the difference in ACT scores among disadvantaged students compared to the parish-wide average will be larger, as shown in the map above. An exception, however, may be Cameron Parish. Analysis showed that Cameron Parish had a lower percentage of disadvantaged students compared to Madison Parish, approximately 79% and 94%, respectively. Furthermore, Cameron had a higher average ACT composite compared to Madison, approximately 18.8 and 14.7, respectively. These observations may be explained by Hurricane Laura, which devastated Cameron Parish in August 2020.

To conclude, the effects on ACT scores in Louisiana caused by economic disadvantages are a contributing factor to the state's low ACT composite average, and these shortcomings may tarnish Louisiana's image in education. Helping to alleviate these problems among families may help students to focus on their studies, possibly leading to an increase of ACT composites across the state.

Data for this report are provided by the Bureau of Labor Statistics the Louisiana Department of Education. Parish level economic data are produced with a year-long lag. Current annual data extend to 2020. 2021 estimates are expected in December 2022.

The Urban/Rural Divide in Louisiana's Timber Industry

BY AMANDA WILDER

Louisiana is known as a "sportsman's paradise," so it should come as no surprise that forestry and fishing are key industries throughout Louisiana. Louisiana has around 14.7 million acres of timber and 12 million pounds of seafood harvested annually throughout the state. Eighty-six percent of the total timber acreage for the state is located in north Louisiana which is estimated to contribute over $4 billion to gross state product but with less than 4,000 employees directly employed.

One of the most important factors that contribute to the state's revenue from an industry is the number of skilled workers within a given area. When a company is looking to relocate or expand, it must know if there is an ample supply of talented, potential employees to meet production needs. One of the tools used for this type of analysis is a location quotient, summarized by Equation 1.

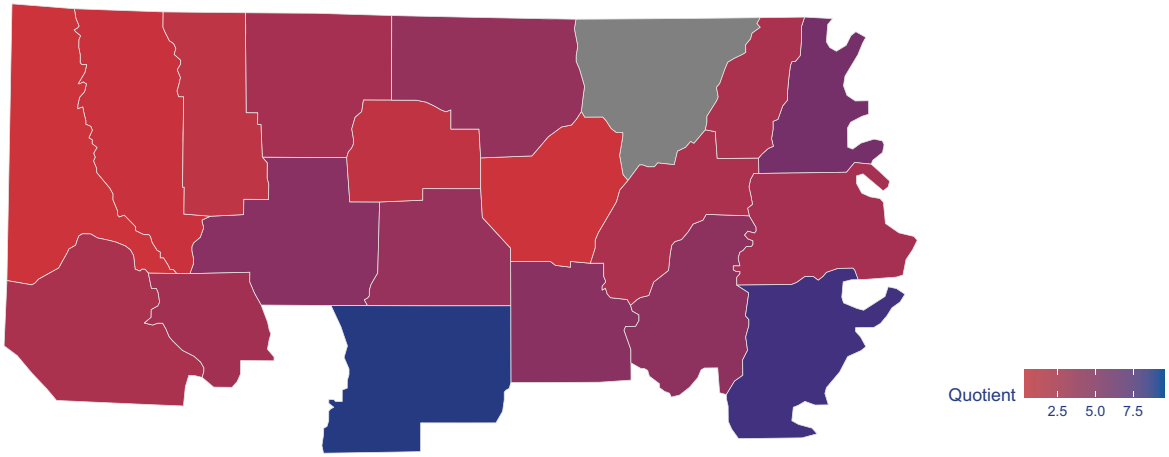
Since a location quotient is a ratio or ratios, the local region is in parity with the state (nation depending on the case) if the quotient is 1. Values of less than one or greater than one imply under and over employment respectively. Since local industry data has a wider variance than their state-wide counterparts, these values can sometimes vary substantially year to year.

Equation 1:

$$Location\ Quotient = \frac{Local\ Industry\ Employment\ /\ Local\ Total\ Employment}{State\ Industry\ Employment\ /\ State\ Total\ Employment}$$

Figure 11 shows 20-year average location quotients at the parish level for forestry and fishing. Most of this employment is within forestry and timber for this region, but Bureau of Economic Analysis industry estimates group these industries together. The local economy in this case is the parish and the reference group is the state. Morehouse Parish has a single producer for the entire parish so the BEA does not disclose its employment data since doing so would identify information about a single business. Three parishes are underemployed compared to the state: Bossier, Caddo, and Ouachita Parishes. This is not surprising since these are all relatively heavily populated areas and forestry is a relatively rural industry. The remainder of northern Louisiana collectively is over employed compared to the rest of the state. This is not necessarily a problem,

Figure 11: Parish Level Average Location Quotients for Forestry and Fishing Industry



since over three-fourths of the industry for the state is also encompassed within these 20 northern parishes. Three parishes (East Carroll, Tensas, and Winn) exhibit relatively high average quotients, between five and ten, indicating that these three parishes are substantively overemployed. There are a significantly higher number of workers who are skilled in the area than jobs available in said area, which would suggest that the parishes may be positioned well for increased company expansions.

Thirteen parishes (Bienville, Caldwell, Claiborne, DeSoto, Franklin, Jackson, Lincoln, Madison, Red River, Richland, Union, Webster, and West Carroll) are in the middle with quotients between one and five. This signifies moderate over employment for the region. There is potentially room for more production companies, since there are more workers who are skilled laborers than jobs in the industry currently available.

Table 1 shows the raw data for the heat map (the Mean column) as well as provides a sense of the magnitude of variation in parish-level location quotient estimates. Relatively more populated parishes tend to show the least amount of variation in estimates. This is true even of the parishes that comprise micropolitan statistical areas, even though the raw number of employees in some of these parishes are among the highest.

High location quotients like these represent both threats and opportunities. While these parishes are relatively more exposed to industry level business cycle movements, they also are home to a relatively well-trained workforce that can fuel future business expansions.

Table 1: Location Quotients and Average Annual Employment

Parish	Min	Mean	Max	Number of Workers
Bienville, LA	3.552	4.932	6.152	215
Bossier, LA	0.469	0.547	0.648	253
Caddo, LA	0.283	0.345	0.411	406
Caldwell, LA	3.484	4.803	7.615	134
Claiborne, LA	2.236	3.018	3.898	130
DeSoto, LA	1.931	2.575	2.92	194
East Carroll, LA	4.558	5.948	6.711	143
Franklin, LA	3.644	4.589	5.222	287
Jackson, LA	2.578	3.995	4.811	162
Lincoln, LA	1.139	1.272	1.414	236
Madison, LA	1.435	3.013	4.793	110
Morehouse, LA	-	-	-	-
Ouachita, LA	0.261	0.352	0.415	246
Red River, LA	2.467	3.203	4.049	87
Richland, LA	1.726	2.537	3.558	172
Tensas, LA	6.279	8.348	10.33	130
Union, LA	3.216	4.102	5.009	246
Webster, LA	0.995	1.332	1.561	175
West Carroll, LA	2.043	2.569	2.936	90
Winn, LA	8.022	9.557	11.873	449

Data for this report are provided by the Bureau of Labor Statistics. Parish level data are produced with a year-long lag. Current annual data extend to 2020. 2021 estimates are expected in December 2022.

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CENTER FOR ECONOMIC RESEARCH

COLLEGE OF BUSINESS

Louisiana Tech University
College of Business
Center for Economic Research
502 W. Texas Ave.
P.O. Box 10318
Ruston, LA 71272

(318) 257-4527

business.latech.edu/cer

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